

Pulling Plants for Plovers

Local Students Experience Conservation in Action at Naval Base Coronado

NAVAL BASE CORONADO'S partnership with the San Diego Zoo is providing local youth with a chance to experience on-the-ground conservation.

February is a busy time for the federally-protected Western Snowy Plover (*Charadrius nivosus nivosus*). These small shorebirds spend a great deal of time feeding and fattening up to prepare for the demands of migration and nesting season. At this time of year, many plovers may already be on their nesting grounds conducting early courtship rituals such as building practice nests in the sand, also known as "scrapes." When the timing is just

right, the female plover will select the best scrape and lay within it exactly three eggs.

At Naval Air Station North Island (NASNI), local high school students from the San Diego Zoo's Safari Park Conservation Corps were also busy preparing for the nesting season. The Conservation Corps is a program in which selected teens spend one day per month involved in a local hands-on conservation project.

On February 6, 2016, students, adult chaperones, and Naval Base Coronado (NBC) Environmental Department staff spent a sunny San Diego Saturday pulling an invasive weed from the dunes. The highway iceplant (*Carpobrotus edulis*) is a low-growing succulent, originally brought to California as a way to protect the landscape against erosion, but which now invades sensitive dune ecosystems by covering the sand in a thick matte of vegetation. This leaves little room for the plover to place her eggs.



The red sand verbena (*Abronia maritima*), a rare native dune plant, grows on NASNI and will be able to expand further with the removal of non-native iceplant.

Tiffany Shepherd

More About Naval Base Coronado & Naval Air Station North Island

NBC IS A consortium of eight Navy installations, including NASNI, which accommodates the training requirements of 16 helicopter squadrons, two fixed wing squadrons, two aircraft carriers, four SEAL teams, Navy Expeditionary Combat Command squadrons, and other air, surface and subsurface commands.

In addition to the Western Snowy Plover, NASNI is home to the endangered California Least Tern and the Burrowing Owl, which is protected under the Migratory Bird Treaty Act. Training activities are prohibited in areas where/when these species are present.

NBC and their partners at the zoo are finding creative ways to make more room for the plovers while giving local youth a chance to help. Since December 2014, NBC Natural Resources and Zoo staffs have worked together to organize weekend events on the base where students can experience on-the-ground conservation efforts. In addition to invasive plant removals, the events have included a beach clean-up and installation of protective fencing.

The weekend event is just one of the ways NBC and the San Diego Zoo are working together for wildlife conservation. The Zoo has been involved in NBC's long-standing endangered species program, which also includes management of the endangered California Least Tern (*Sternula antillarum browni*), for over 18 years. In the last five years, the Navy and Zoo began developing a more focused nest monitoring program for the Least Tern and Snowy Plover, working via cooperative agreement under the California Cooperative Ecosystems Studies Unit (CESU) program. Current and future efforts are focused on answering long-standing research questions, such as:



A Snowy Plover nest found on NBC.
Tiffany Shepherd

- What migratory and stopover routes do California Least Terns use during the non-nesting season?
- What techniques can be developed to improve Least Tern fledgling productivity estimates?
- What are the meta-population dynamics of the Snowy Plover within Southern California?

The partnership is paying off for the plovers. During the most recent 2015 nesting season, biologists documented

About San Diego Zoo's Conservation Efforts

SAN DIEGO ZOO Global is a conservation organization dedicated to the science of saving endangered species worldwide. San Diego Zoo Global operates three facilities: the San Diego Zoo, the San Diego Zoo Safari Park, and the San Diego Zoo Institute for Conservation Research.

The institute is the largest zoo-based multidisciplinary research effort in the world. More than 150 scientists carry out research vital to the conservation of animals, plants, and habitats in over 80 countries worldwide. The institute focuses on bringing people and groups together to collaborate on solutions.

One long-term partnership that's proving successful is the institute's partnership with the Navy on San Clemente Island. A captive breeding program is working to restore the population of the San Clemente Loggerhead Shrike (*Lanius ludovicianus mearnsi*), a small songbird that was once named "North America's rarest bird." Found only on San Clemente Island, the program has seen the bird population grow from 14 individuals to 67 breeding pairs in 2013. (For more about this project, see our article "Navy Region Southwest Leverages Key Partnerships" in the fall 2013 issue of *Currents* at http://greenfleet.dodlive.mil/files/2013/11/Fall13_Region_Southwest_Partnerships.pdf.)





Snowy Plover (*Charadrius nivosus*).
U.S. Fish and Wildlife Service Southeast Region

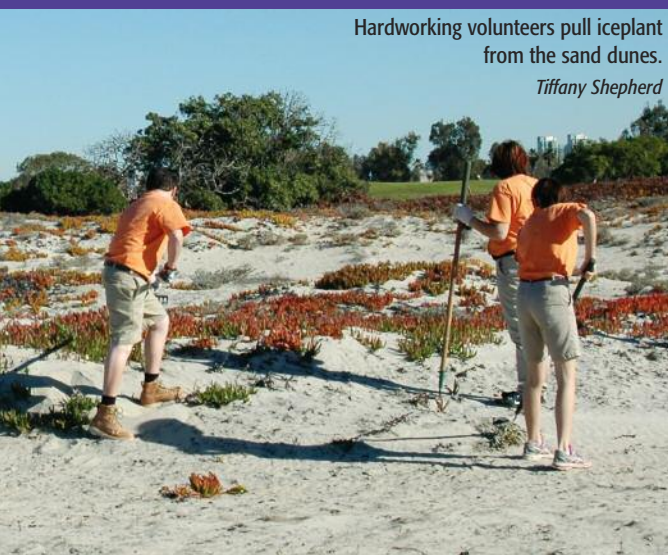


Volunteers pose for a photo while removing non-native iceplant from Snowy Plover habitat.
Katrina Murbeck



Snowy Plover running chick.
Hans Hillewaert

Snowy Plover nest at
Silver Strand Training Complex,
San Diego County, CA.



Hardworking volunteers pull iceplant from the sand dunes.
Tiffany Shepherd

The Basics About the Western Snowy Plover

ACCORDING TO THE U.S. Fish and Wildlife Service (USFWS), the Western Snowy Plover is a small shorebird, about six inches long, with a thin dark bill, pale brown to gray upper parts, a white or buff colored belly, and darker patches on its shoulders and head.

The Pacific coast population of the western snowy plover was listed as threatened on March 5, 1993. This population is defined as those individuals that nest adjacent to tidal waters of the Pacific Ocean, including all nesting birds on the mainland coast, peninsulas, offshore islands, adjacent bays, estuaries, and coastal rivers. The main reason for their endangered status, according to USFWS, is human activity encroaching on breeding and nesting sites.

The current known breeding range of this population extends from Washington State to Baja California, Mexico. The breeding season in the United States extends from March 1 through September 30, although courtship activities have been observed during February.

A male Snowy Plover stands on NBC among native beach evening primrose (*Camissonia cheirantifolia*).

Emily Rice



Volunteers from the San Diego Zoo's Safari Park Conservation Corps and NBC stand on a pile of non-native iceplant that they removed from Snowy Plover habitat.

Katrina Murbock

record-high productivity, finding that each plover pair produced an average of 2.5–2.7 fledglings, a statistic which exceeds the U.S. Fish and Wildlife Service Recovery Plan goal. In addition to Least Tern and Snowy Plover nest monitoring and research, NBC's comprehensive management program also includes annual site preparation, predator management, conservation law enforcement patrols, and monitoring of sensitive raptors.

As NBC looks ahead to planning future volunteer events to benefit the plovers, it is clear that bringing local youth out to lend a hand will lead to long-term conservation successes for both the plovers and the young people who care for them. ⚓

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